



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

4.0

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/789,652

02/27/2004

John M. Wirtz

309.035

9155

7590 02/08/2007  
PETER C. STOMMA  
BOYLE, FREDRICKSON, NEWHOLM,  
STEIN & GRATZ, S.C.  
250 East Wisconsin Avenue, Suite 1030  
Milwaukee, WI 53202

EXAMINER

MCCLLOUD, RENATA D

ART UNIT

PAPER NUMBER

2837

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/08/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/789,652	<b>Applicant(s)</b> WIRTZ ET AL	
	<b>Examiner</b> Renata McCloud	<b>Art Unit</b> 2837	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 November 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "intermediate module disposed between and interconnecting the power module and the interface module" (see claim 20), "interior", "control module"; "power unit", "interface unit", "intermediate unit", "power supply unit", and "control structure" must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Specification***

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "control module", "power unit", "interface unit" (see claim 9, whereas the spec describes an interface module), "intermediate unit", and "power supply unit" (the spec refers to both a redundant power supply and a power supply), "control structure". There should be consistency between the claimed limitations and what is described in the specification.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "the control circuit". There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hahn et al (US 6452349) in view of Schienbein et al (US20030036806).

**Claim 1:** Hahn et al teach a control system having modules, comprising: a drive module housing an AC drive (fig. 8:78), the AC drive (78) interconnecting a rotating machine (32) to a utility power source (fig. 1:70); a control module housing a control structure (fig. 8:23); a redundant power supply (48,25) operatively connected to the control structure (23) for supplying electrical power to the control structure; and an intermediate module (50/52/54) interconnecting the control module (23) and the drive module (78) to allow the control module to transmit instructions therethrough. Hahn does not explicitly recite that the control system is modular. Schienbein et al teach a modular control system. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Hahn et al to be modular as taught by Schienbein et al in order to provide a universal system that may be used in different applications.

**Claim 2:** Schienbein et al teach the control structure (10) includes a control circuit (Fig. 5:18) operatively connected to the AC drive (20) and a user interface (16).

**Claim 3:** Schienbein et al teach the intermediate module (40) houses a bypass circuit (0037;0042) for interconnecting the AC motor to the utility power source in response to failure of the AC drive.

**Claim 4:** Schienbein et al teach the control circuit (18) is operatively connected to the bypass circuit (40;0037;0042;0070).

**Claim 5:** Schienbein et al teach the intermediate module (40) houses a disconnect circuit (0037;0042), the disconnect circuit disconnecting the AC drive from the power source in response to a user selected condition on the AC motor (16;0070).

**Claim 6:** Schienbein et al teach a display (0070). Gupta et al teach a keypad and a display (col. 7:10-19).

**Claim 7:** Schienbein et al teach a power module selectively connectable to the control structure, the power module including a secondary power source (14)

**Claim 8:** Hahn et al teach the redundant power supply (25) is in the control module (23). Schienbein et al teach a redundant supply (50).

**Claim 10:** Schienbein et al teach the power unit (20) includes a housing having an interior for

7. Claims 9-23 rejected under 35 U.S.C. 103(a) as being unpatentable over Schienbein et al (US20030036806) in view of Gupta et al (US6605928).

**Claim 9:** Schienbein et al teach modular control system, comprising: a drive module housing an AC drive (20), the AC drive (20) interconnecting a rotating machine to a utility power source (12; 0008); a control module housing a control structure (10); a redundant power supply (50) operatively connected to the control structure (18) for supplying electrical power to the control structure; and an intermediate module (40) interconnecting the control module (10) and the drive module (20). They do not explicitly teach a motor. Gupta et al teach a turbine acting as a motor (col. 5:13-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Schienbein et al to use a motor as taught by Gupta et al since it was well known in the art that a turbine/generator acts as a motor, in order to generate power.

**Claims 10,18:** Schienbein et al teach the power unit (20) includes a housing having an interior for receiving the AC drive therein, the AC drive having an input connectable to a power

Art Unit: 2837

source (12) and an output connectable to a machine (0035; the inverter is connectable thru the converter).

**Claims 11,19:** Schienbein et al teach the interface unit includes (10): a housing having an interior for receiving the control circuit (fig. 5:18); and a user interface (Fig. 5:16) for allowing a user to program the control circuit.

**Claim 12:** Schienbein et al teach a display (0070). Gupta et al teach a keypad and a display (col. 7:10-19).

**Claim 15:** Schienbein et al teach a power module selectively connectable to the control structure, the power module including a secondary power source (14)

**Claim 16:** Schienbein et al teach a redundant supply (50). They do not teach the redundant power supply is provided in the control module. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Schienbein et al and Gupta et al to arrange the redundant power supply in the controller since it has been held that rearranging parts of an invention involves only routine skill in the art (In re Japikse, 86 USPQ 70; also see MPEP 2144.04 (6)), in order to control the machine.

**Claims 13, 21:** Schienbein et al teach the intermediate unit includes (40): a housing having an interior (inside of 40); and a bypass circuit (40;0037;0042;0070) received with the interior of the housing and being connected in parallel with the AC drive (20), the bypass circuit interconnecting the AC motor to the power source in response to failure of the AC drive (0037;0042).

**Claims 14,22:** Schienbein et al teach the intermediate unit (40) includes a housing having an interior (inside of 40); and a disconnect circuit (0037;0042) received with the interior of the housing and being connected in series with the AC drive (20), the disconnect circuit

Art Unit: 2837

disconnecting the AC drive from the power source in response to a predetermined condition (16;0070).

**Claim 15:** Schienbein et al teach a power supply unit (14) having a power supply selectively connectable to the control circuit (10) for providing electrical power to the control circuit independent of the power source.

**Claim 17:** Schienbein et al teach a control system, comprising: a drive module housing an AC drive (20), the AC drive (20) interconnecting a rotating machine to a utility power source (12; 0008); a control module housing a control structure (10); a power supply (14) selectively connected to the control structure (18) for supplying electrical power to the control structure. They do not explicitly teach a motor. Gupta et al teach a turbine acting as a motor (col. 5:13-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Schienbein et al to use a motor as taught by Gupta et al since it was well known in the art that a turbine/generator acts as a motor, in order to generate power.

**Claim 20:** Schienbein et al teach an intermediate module (40), an interface module (10) and the power module (14). They do not teach an intermediate module in between the interface module and the power module. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the apparatus taught by Schienbein et al and Gupta et al to arrange the intermediate module in between the interface module and the power module since it has been held that rearranging parts of an invention involves only routine skill in the art (In re Japikse, 86 USPQ 70; also see MPEP 2144.04 (6)), in order to control the machine.

**Claim 23:** Schienbein et al teach a redundant power supply (50) operatively connected to the control structure (18) for supplying electrical power to the control structure.



***Response to Arguments***

8. Applicant's arguments with respect to claims 1-8 have been considered but are moot in view of the new ground(s) of rejection.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., an intermediate module that interconnects a power unit so as to allow a control circuit to communicate with an AC Drive. (see claims 9-23)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

***Conclusion***

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 2837

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Renata McCloud whose telephone number is (571) 272-2069. The examiner can normally be reached on Mon.- Fri. from 5:30 am - 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lincoln Donovan can be reached on (571) 272-2800 ext. 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Renata McCloud  
Examiner  
Art Unit 2837

rdm

  
LINCOLN DONOVAN  
SUPERVISORY PATENT EXAMINER